



## **Memorandum**

**To:** Honorable Mayor Maso and Members of the Frisco City Council

**cc:** George Purefoy, City Manager  
Paul Knippel, P.E., Director of Engineering Services  
Elizabeth Metting, P.E., Asst. Director/City Engineer

**From:** Lori Chapin, P.E. Senior Civil Engineer

**Date:** February 16, 2010

**Subject:** Consider and act upon adoption of a Resolution authorizing the City Manager to execute a Professional Services Agreement by and between the City of Frisco and Freese and Nichols, Inc., for a detailed Hydraulic Analysis of Stewart Creek.

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**Action Requested:** City Council consideration and approval of a Resolution authorizing the City Manager to execute a Professional Services Agreement by and between the City of Frisco and Freese and Nichols, Inc. of Fort Worth, Texas, in the amount of \$206,142.00 for a detailed Hydraulic Analysis of Stewart Creek.

**Background Information:** The City of Frisco has adopted and administers federally required development standards that are necessary to maintain eligibility for property owners to obtain flood insurance in the City. To assist in floodplain management is the need for comprehensive Hydrologic and Hydraulic studies for all watersheds within the City. Presently, none of these creeks have been comprehensively studied to establish the City required 100 year fully developed floodplain. In the absence of a comprehensive study, the fully developed floodplain is established over time by numerous consultants and development projects. This creates a management challenge and results in lack of uniform data and quality assurance. By having a known, fully developed floodplain, developers would be able to make decisions early in the development process regarding flood prone areas and developable property.

Stewart Creek, which is located primarily in the southwestern quadrant of the City, is a large creek in which the contributing drainage area is approximately 18 square miles. Freese and Nichols, Inc. completed the detailed Hydrologic Analysis or the first phase of the comprehensive study in October 2008, where existing and fully developed flows were determined for the watershed. The second phase of this multi-phase project is to perform a detailed Hydraulic Analysis that will establish and map the existing and fully developed floodplain for Stewart Creek, its main tributaries and

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several smaller tributaries. The work includes surveying, reviewing existing studies, updating existing models (bridge, culvert, road, and channel improvements), and mapping the existing and fully developed floodplain.

The cost of the services is \$206,142.00, and is anticipated to take approximately nine months to complete.

Should additional services be required, they shall be performed on an individual basis upon written authorization by the City.

**Alternatives:** City Council could consider the following alternatives:

- Approval of a Resolution authorizing the City Manager to execute the Professional Services Agreement
- Input toward the discussion as desired
- Deny approval of the Resolution and send back to staff with direction

**Financial Considerations:** Execution of the Professional Services Agreement with Freese and Nichols, Inc. to complete the project costs \$206,142.00. Staff recommends that funding for the Project come from the Stormwater Utility Fund FY2010 operating budget.

**Legal Review:** The Professional Services Agreement has been reviewed and approved by the City Attorney's Office as to form and legality.

**Supporting Documents:** Supporting documents include the following items:

- Project Location Map
- Copy of Professional Services Agreement
- Copy of Resolution

**Staff Recommendation:** Staff recommends approval of this item.